

Ch 2q23-q31

Centromere

1cM	D2S142
4cM	D2S284
4cM	D2S156/ D2S354
	D2S111
5cM	
2cM	D2S294
	D2S335

IGE locus

6cM	29 cM
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2cM	D2S324
2cM	D2S384
	D2S152

8cM

D2S311

Telomere

FIGURE 1

1Ax00.1

NaC-340 TGTGTTCTGCCCGAGTGAGACT
NaC-341 CTTCCTGCTCTGCCAAACTGAAT
257 bp 53.4C

1Ax00.2

NaC-342 GGCGATGTAATGTAAGGTGCTGTC
NaC-343 GTGCCTTCAGTTGCAATTGTTCAG
259bp 54.5C

1Ax01.1

NaC-268, TTAGGAATTCATATGCAGAATAA,
NaC-269 TGGGCCATTTCGTCGTC
201 bp 50.9C

1Ax01.2

NaC-270 GAAAGACGCATTGCAGAAGAAAAGG,
NaC-271 CTATTGGCATGTGTTGGTGCTACA
277bp54.4C

1Ax02

NaC-45 GTGCTGGTTCTCATTAACTTAC,
NaC-46 TTCCCAACTTAATTGATATTAGC,
319 bp 49.9C

1Ax03

NaC-87, GCAGTTGGCTTCAATGTTAG,
NaC-88, GACACAGTTCARAATCCCRAATG,
234 bp 48.9C

1Ax04

NaC-63, TTAGGGCTACGTTCAATTGTATG,
NaC-64, AGCACTGATGGAAAACCAAACATAT,
338 bp 50.8C

1Ax05

NaC-164 AGCCCAGTAATATAAATCCT
NaC-165 TCCAGGCTGATAAGCTATGTCTAA,
488 bp 52.8C

FIGURE 2

1Ax06

NaC-276, CTGTGGCCTGCCTGAGCGTATT,
NaC-277 CCAATTCTACTTTAAGGAAATG,
248bp 50.3C

1Ax07

NaC-272, AAATACTTGTGCCTTGAA,
NaC-273, GTACATACAATATACACAGATGC
240 bp 46.7C

1Ax08

NaC-89, AGGCAGCAGAACGACTTGTAAATA,
NaC-90, ATCCGGTTTAATTCATAACTCA,
267 bp 51.9C

1Ax09.2

NaC-217 GTT GAG CACC TTAG TGA ATA ATA,
NaC-218 TCACACGCTCTAGACTACTTCTCT
337bp 52.7C

1Ax10a NaC-29, TGCAAATACTCAGCCTTCAAA,
NaC-30, TTCCCCACCAGACTGCTCTTC,
239bp, 55.1C

1Ax10a

NaC-31, GCAGCAGGCAGGCTCTCA,
NaC-32, TCTCCCATGTTTAATTTCAACC,
293bp, 54.5C

1Ax10b

NaC-67, ATAATCTTGCAAAATGAAATCACA,
NaC-68, ATCCGGGATGACCTACTGG
307 bp 53.7C

1Ax10b

NaC-65, GATAACGAGAGCCGTAGAGATTCC,
NaC-66, AGCCAGCCATGCCTGAACCA
282bp 56.4C

FIGURE 2 (cont'd)

1Ax10c

NaC-39, TGTTGCTTGTCAATTGCTCAA,
NaC-40, TGCACATTCCCAACTCACAAA,
286bp, 50.7C

1Ax11.1

NaC-69 AAGGGTGTCTCTGTAACAAAAATG,
NaC-70, GTGATGCCAGGTCAACAAA
269bp 50.8C

1Ax11.2

NaC-71 CTGGGACTGTTCTCCATATTGGTT,
NaC-72, TTTGCAGGGGCCAGGAAG
294 bp 53.3°C

1Ax12

NaC-41 CATTGTGGGAAAATAGCATAAGC,
NaC-42, GCAAGAACCTGAATGTTAGAAA,
334bp, 51.2C

1Ax13.1

NaC-92 TAATGCTTTAAGAACATACAAA,
NaC-93, CCAGCGTGGAGTTGACAATC,
256bp, 51.1C

1Ax13.2

NaC-75 CGGCATGCAGCTTTGGTA,
NaC-91, ATGTGCCATGCTGGTGTATTTC,
277 bp 55.6C

1Ax14.1

NaC-79 CACCCATCTTCTAACACTATGC,
NaC-80, CAGCAATTGGAGATTATTCAATT,
254 bp 50.4C

1Ax14.2

NaC-81 GCAGCCACTGATGATGATAA,
NaC-82, CTGCCAGTTCCTATACCACTT,
269 bp 49.4C

FIGURE 2 (cont'd)

1Ax14.3

NaC-83 TACAGCAGAAATTGGGAAAGAT,
NaC-84, GTATTCTACCTACCCACACCTAT,
269 bp 50.2C

1Ax15

NaC-202 TTCTTGGCAGGCAACTTATTACC,
NaC-203 TAAGCTGCACTCCAAATGAAAGAT
233bp 53.1C

1Ax16.1

NaC-187, GGCTGAATGTTCCACAACT,
NaC-168 GTTCAACTATTGGAAACACG
277 bp, 51.4C

1Ax16.2

NaC-188, AGGCAGAGGAAAACAATGG,
NaC-189, ACAAGGTGGATAATTAAAAATG
234 bp, 50.3C

1Ax17

NaC-143, GTTTCTCTGCCCTCCTATTCC,
NaC-144, AAGCTACCTTGAACAGAGACA,
330 bp, 48.8C

1Ax18

NaC-139, AATGATGATTCTGTTATTA,
NaC-140, AATTGCCATTCTTTG,
272 bp, 46.1C

1Ax19.1

NaC-219 TTGACATCGAAGACGTGAATAATC,
NaC-220 CCATCTGGCTCATAAACTTGTA
285bp 49.3C

1Ax20

NaC-338 CCCTTGAAAATTATATCAGTAA,
NaC-339 ATTTGGTCGTTATGCTTATTG
230 bp 47.6C

FIGURE 2 (cont'd)

1Ax21

NaC-252, TCCAGCACTAAAATGTATGGTAAT,
NaC-253, ATTTGGCAGAGAAAACACTCC
261 bp 49.8C

1Ax22

NaC-254, TTTAGCCATCCATTTCTATTT,
NaC-255, TATTTCCCCATATCATTGA
223 bp 49.1C

1Ax23.1

NaC-256 TTGCAAGAAACTAGAAAGTC,
NaC-257 TTGATGCGTGACAAAATGG
250bp 48.3C

1Ax23.2

NaC-258 GACCAGAGTGAATATGTGACTACC,
NaC-259 CTGGGATGATCTTGAATCTAATC
246bp 49.5C

1Ax24.1

NaC-221 GCAACTCAGTCATGGAATTTGAA,
NaC-222 CTTGTTTCGTTAAAGTAGTA
289bp 56.1C

1Ax24.2

NaC-213 CAAAGATCACCCCTGGAAGCTCAGTT,
NaC-223 TTCAAGCGCAGCTGCAAACGTGAGAT
277bp 55.8C

1Ax24.3

NaC-260 ACATGGCCTCCTACTCTTCCTA,
NaC-261 ACAGATGGGTTCCCACAGTCC
268 bp 55.3C

1Ax24.4

NaC-262 TAACGCATGATTCTTCACTGGTT,
NaC-263 ATCCCAAAGATGGCGTAGATGA
262 bp 54.9C

FIGURE 2 (cont'd)

1Ax24.5

NaC-308, TGAGAAATAGGCTAAGGACCTCTA,
NaC-309 CCTAGGGGCTGGATTCC
244 bp 53.2C

1Ax24.6

NaC-310, AAGGGGTGCAAACCTGTGATTT,
NaC-311 AGGGCCATGTGGTTGCCATAC
252 bp 53.4C

1Ax24.7

NaC-312 CTTCCGGTTATGTTTCATTCT,
NaC-313 TCTTATTAGTTGCACATTTA
278bp 48.4C

1Ax24.8

NaC-364 CAATCCTTCCAAGGTCTCCTATC,
NaC-365 TTTCATCTTGCCTTCTTGCTCAT
326bp 52.4C

1Ax24.9

NaC-366 CATGTCCACTGCAGCTGTCCA,
NaC-367 TCCCCTTACACAGAGTCACAGTT
292bp 53.1C

FIGURE 2 (cont'd)

a. Glu1238Asp:

normal:

patient R10191 with IGE:

GCA TTT GAA GAT ATA;

GCA TTT GAC GAT ATA.

b. Ser1773Tyr:

normal:

patient R9049 with IGE:

ATC ATA TcC TTC CTG;

ATC ATA TmC TTC CTG; TCC>TAC

FIGURE 3

2Ax00.1 NaC-235 ATGGGTTGAATGACTTCTGACAT, NaC-236
AGGCATTCCTGTACAGGGACTAC
266bp 52.7C

2Ax00.2 NaC-237 ACAGGAAATGCCTCTTACTTC, NaC-238
TTTCCCCAAGGATTCTACTACTGT
277bp 50.6C

2Ax01 NaC-100, AGTGCATGTAAGTGACACAATCAC, NaC-101,
CTTGCCTTCTGTTGGGTCTCT
241 bp 53.7C

2Ax01 NaC-11 TCCGCTTCTTACCAAGGGAAATC, NaC-102,
AGGCAGTGAAGGCAACTTGACTAA, 259
bp 55.1C

2Ax02 NaC-96, CAGGGCAATATTATAAATAATGG, NaC-97,
TTTGGAAAATGTGTAGCTCAATAA,
289 bp 48.7C

2Ax03 NaC-43, AAGGCATGGTAGTGCATAAAAG, NaC-44,
ATGAAACATAAAGGGAGGTCAA, 201
bp, 49.3°C

2Ax04 NaC-47, AATGTGAGCTGGCTATTGTCTCT, NaC-48,
ATAGGCTCCCACCAGTGATTAC,
213 bp, 50.9°C

2Ax05 NaC-49, AGGCCCTTATATCTCCAAGT, NaC-50,
CAACAAGGCTTCTGCACAAAAG, 241
bp, 53.9°C

2Ax05.2 NaC-110, CTTGGTGGCTTGCCTTGAC, NaC-111, TCATGAGTGTGCCCCATCAGC,
223
bp, 51.1C

2Ax05.3 NaC-112, GGAAAGCTGATGGCGACACT, NaC-113,
CTGAGACATTGCCAGGTCC, 329
bp 53.0C

FIGURE 4

2Ax05.4 NaC-114, TTTTACCCGTTGCTTCTTA, NaC-115,
TATCCCTGCTCTTCATTTATCT
224bp 50.9C

2Ax06.1 NaC-169, GCCGGTAAAATAGCTGTTGAGTAG, NaC-170,
GCCATTGCAAACATTTATTCGTA 206bp 53.3C

2Ax06.2 NaC-171, GCGTGTGCGCTAATAG, NaC-172,
CTAAGTCACTTGATTACATCTAA
295bp 48.0C

2Ax07 NaC-196, ACAGGGTGGCTGAAGTGTGTTA, NaC-197,
GTGGGAGGTGGCAGGTTATT, 199
bp, 52.6C

2Ax08 NaC-118, CAATTAGCAGACTTGCCGTTATT, NaC-119,
TCTCTTGAGTCGGTGTGTTATGA
252bp 52.9C

2Ax09 NaC-120, ACCGAACCTAAGAGAATTGCTGTA, NaC-121,
AAAGGACCGTATGCTTGTCACTA
334bp 52.9C

2Ax10a.1 NaC-161 TATGAATGCGCATTTACTCTTG, NaC-156
TGGAGCTCAACTTAGATGCTACTG
286 bp 52.1C

2Ax10a.2 NaC-13 GGTGCTGGTGGATAGGAGTTTT, NaC-162
TCCATTAAATTCTGGCATATTCTT,
316 bp 50.9C

2Ax10b.1 NaC-145 TCAGAGGGGTGCTTCTTCCACAT, NaC-14
CTTCGGCTGTCATTGTCCTCAAAG,
298bp 55.6C

2Ax10b.2 NaC-146, GCAAAGGACATTGGCTTGAGAAT, NaC-
147, CTGCCTGCACCAGTCACAACTCT
324bp 59.4C

FIGURE 4 (cont'd)

2Ax10c NaC-190, TGGGCTTGCTGCTTCAA, NaC-191,
AGTAACGTGACGCAGGACTTTA, 218
bp 51.5C

2Ax11.1 NaC-148, CCCTGTCCTCCAGCAGATT, NaC-70
GTGATGGCCAGGTCAACAAA, 283
bp, 51.5C

2Ax11.2 NaC-149, TTTGATTGGGACTGTTGAAAC, NaC-
150, AAGGCAATTATAAACTCTTCAAG
233bp 52.0C
2Ax12 NaC-159, TGGGAGTTAAATTAAAGTTGCTCAA, NaC-160,
ACATTITATGAACACTCCCAGTTA
285bp 50.4C

2Ax13.1 NaC-239 ATTAACACTGTTCTGCTTTAT, NaC-240
GTGCCAGCGTGGGAGTTC 239 bp
51.1C

2Ax13.2 NaC-241 GTGGGGCTCTAGGAAACCT, NaC-242
TTAATGAAAATGAGGAAAATGTT 324
bp 53.7C

2Ax14.1 NaC-134, GACCAAGCATTTCATTTCATTTC, NaC-135,
AGTGGCAGCAAGATTGTCA 234
bp, 49.6C

2Ax14.2 NaC-136, GGCCTTGCTTTGAGTTCC, NaC-137,
GGTCTTGCCATTCTATGGTG, 257
bp, 51.1C

2Ax14.3 NaC-266, TTAAACCGCTTGAAGATCTAAATA, NaC-267
TATACACCAAAATATCTCCTTAT
319bp 48.5C

2Ax15 NaC-314 GGGGCACACCTAATTAAATTTCAT, NaC-315
AAAGAGGATACTCAAGACCACATA
(247bp) 51.5C

FIGURE 4 (cont'd)

2Ax16 NaC-344 CCCACCAACACAAATATACTAAT, NaC-345
TGAAGGGAAAGGGAAAAGATT
283bp 52.2C

2Ax17 NaC-346 TCCAGCCTAGGCACCTGATAA NaC-347
ATAAAGCAGCAAAGTGCAGCATAAC 310bp
52.4C

2Ax18 NaC-348 AAGGCTGAACGTGTAGACATTTC NaC-349
TGACATTCCATGGTACAAAGTGT
262bp 52.2C

2Ax19.1 NaC-350 TTTGTTGGCTTTCACTTAT NaC-351
CCACCTGGCAGTTGATTG 268bp 51.9C

2Ax19.2 NaC-352 TAAGCGTGGTCAACAACTACAGT NaC-353
ATTCTGCCAGCATTATTGTC
260bp 50.2C

2Ax20 NaC-354 CAAAACATTGCCCAAAAG NaC-355
TCAAACATAACAATTCCCTCTAA 239 bp 48.1C

2Ax21 NaC-306, GATAATTAAAAACTCACTGATGTA, NaC-307
GGAGGCTAAAGGAAAGAGTATG
288bp 46.6C

2Ax22 NaC-356 ATTTATAGCCAGCAAAGAACAC NaC-357
CTAGAAATTGGCTGTGAA 230 bp 49.6C

2Ax23.1 NaC-358 CTGCTTGTGACCTAAGGCAAGTT NaC-359
GTGACCATGTTAAGGCAGATGAGG
290bp 51.4C

2Ax23.2 NaC-360 GGAATGGCTTGTGACCTAAGGCAAGTT NaC-361
TCCTTAACTGAATAAAAGCACCTC
290bp 51.6C

2Ax24.1 NaC-207 TGGAACACCCATCAAAGAAGATACT, NaC-208
GTGGGAGTCCTGTTGACACAAAC
278bp 52.8C

FIGURE 4 (cont'd)

2Ax24.2 NaC-209 AGCGATTACATGGCATCAAAC, NaC-210
ACGTGGTGGAAAGGCGTCATA 270 bp,
52.9C

2Ax24.3 NaC-211 GCGACCCAGTTATAGAGTTGCC, NaC-212
CTTGTGCGTTCAACGTGGTC
289bp 56.1C

2Ax24.4 NaC-213 CAAAGATCACCCCTGGAAGCTCAGTT, NaC-214
ATCCAGGGCATCTGCAAAATCAGAA
277bp 55.8C

2Ax24.5 NaC-215 TGCCTATGTTAAGAGGGAAAGTTGGG, NaC-216
ATGACCGCGATGTACATGTTCAAG
279bp 55.3C

2Ax24.6 NaC-278 TCAATTGTTACAGCCCGTGTGATG, NaC-279
TTTATACAAAGGCAGACAAACAT
302bp 52.0C

2Ax24.7 NaC-280 AGGCGTAATGGCTACTCAGACGA, NaC-281
GTAATCCCTCTCCCCGAACATAAAC
251bp 53.8C

2Ax24.8 NaC-282 TTTGATTCACGGGTTGTTACTCTTA, NaC-283
TTCTATGGAACATTACAGGCACATT 294bp 52.1C

2Ax24.9 NaC-284 TAATGTGCCCTGAAATGTTCCATAGA, NaC-285
CAGGCTTCTAGAAAGGACTGATAGG 264bp 50.6C

2Ax24.10 NaC-286 GTCCCAGCAGCATGACTATC, NaC-287
CCCACTGGGTAAAATTACTAAC 249bp
49.4C

2Ax24.11 NaC-288 TAGCCATCTCTGCTCTGGT, NaC-289
TGGCTTCCATATTAGACTTCTG
307bp 51.3C

2Ax24.12 NaC-290 TCTTGCCTATGCTGCTGTATCTTA, NaC-291
AGTCGGGCTTTCATCATTGAG
207bp 51.8C

FIGURE 4 (cont'd)

2Ax24.13 NaC-292 TTCTTCATGTCATTAAGCAATAGG, NaC-293
TTCATAATTAAAAGTGCTAGGAACA
299bp49.4C

2Ax24.14 NaC-294 CTTCAGGTGGATGTCACAGTCACTA NaC-295
ATTCAAGCAATGCCAAGAGTATCA
263bp51.5C

2Ax24.15 NaC-296 CTTTCAATAGTAATGCCTTATCAT NaC-297
TCCTGCATGCATTTCACCAAC
348bp 49.6C

2Ax24.16 NaC-362 CTGTTCACATTTGTAAAACATAAT, NaC-263
ATCCCAAAGATGGCGTAGATGA
309 bp 50.8C

2Ax24.17 NaC-325 CACGCTGCTTTGCTTG, NaC-363
GATCTTGTCAAGGTCACAGTCT 269
bp 54.0C

FIGURE 4 (cont'd)

a. Lys908Arg:
normal: TAC AAA GAA;
9782 (Patient with IGE): TAC AGA GAA;

b. leu768val, in individuals 8197, 9062 et 9822 (all IGE patients).

FIGURE 5

3Ax00a.1 NaC-390 TGTGTCCGCCAGTAGATGG, NaC-391
TTTTGACCACAGAGGTTACAA 233bp
51.4C

3Ax00a.2 NaC-392 GAAGCGGAGGCATAAGCAGA, NaC-393
GGTGCAGATAATGAAATGTTTGT
253bp 51.3C

3Ax00b NaC-394 CACCCCTATGCCAAATGTCAAAGA NaC-395
CAAAAACAAACTTATACCCAGAAG
293bp 51.6C

3Ax00c NaC-396 CAAATATTGGGCAAACCTAAT, NaC-397
AAGGTGCCATCACAAATCAT 225bp
50.7C

3Ax01.1 NaC-51 ATCGCTTGCTTCCTAACTCTTGT, NaC-52
AAGTCACTATTGGCTTGGTTG,
260bp, 53.1C

3Ax01.2 NaC-53 AGAAGCCAAAAAGGAACAGATA, NaC-54
GGCCCAGAAAAGTATATTACAGTT,
231bp, 50.8C

3Ax02 NaC-85, TCCTTAAATAAGCCCATGTCTAAT, NaC-86,
TCTCAAAGAAATTACAGATACT,
273bp, 47.3C

3Ax03 NaC-27, AATGGCCATGGTAAACCTACTAAC, NaC-28,
CAGGCTATACCCACAAGGAGATT,
212 bp 51.8C

3Ax04 NaC-94, TGTAAATTTGGCTTGGATGTT, NaC-95,
TCACTCCTTGCCTTATCAA, 198 bp
50.8C

3Ax05.1 NaC-247, AGGGCTCTATGTGCCAAACC, NaC-248,
AGGGGCCTACTACCTTACACCAG 213
bp 52.2C

FIGURE 6

3Ax05.2 NaC-249 TGTAATCCCAGGTAAGAAGAAC, NaC-250
TACCGGGATGAAGTGTAAATAATAA
304 bp 51.8C

3Ax06.1 NaC-192, TTCTGGCACTCTCCTCAGGTAAC, NaC-193, GTCCCATTGAATCCATTGTGC,
261 bp 55.4C

3Ax06.2 NaC-194, GGCCCCAAGCGATTCTG, NaC-195,
TGTACACCCACAGTCTCAACTATT,
209 bp, 50.3C

3Ax07 NaC-204, ACAGCCACCTTGTAATAAA, NaC-205,
TTTTCGCAAAGAGTTCTAT
220 bp, 46.6C

3Ax08 NaC-98, AAACTGACCTACCTCCATTCTC, NaC-99,
ACTCAGCCTATGCTTTCAATTCA,
247 bp 53.2C

3Ax09 NaC-37 CAGATATTATTTGGGACATTAT, NaC-38
AAATCTTGCKTTATCACTCACT, 295
bp, 52.0C

3Ax10a.1 NaC-198 TAGTGCCTGGCTTGTATGAC, NaC-199
CGGATTGGAAAGCTGTCTCT
225 bp 54.3C

3Ax10a.2 NaC-200 AGAGCACCTGAAGGAAACAAACAA, NaC-274,
TCCCTCAACTGAAGTACAGATAGT, 253 bp 51.2C

3Ax10b NaC-33, ATAATTGCGTTCTCCCCTACCC, NaC-34,
AAGCCCTGGCACCACCTTG, 301
bp, 56.2°C

3Ax10c NaC-35, _TTGCAAAGAAATGCTATGT, NaC-36,
CTGGGTAAACAGACTTCAGTAAT, 303
bp, 51.4°C

3Ax11.1 NaC-122, ATGGGATTGTCTCAAGTTCT, NaC-123,
GATGGCAAGATCAACAAATGGA
294 bp 50.3C

FIGURE 6 (cont'd)

3Ax11.2 NaC-124, CTTGATCTGGGACTGCTGTGATG, NaC-125,
AGGATATAATTGGTTCAACA
284bp 51.5C

3Ax12 NaC-61, TTTTCAGTGCTCTGATAGTAGTG, NaC-62,
GTGCCAATGAGCGACAGG, 254 bp,
50.7°C

3Ax13.1 NaC-73, CCACGTGTGGTTCTATGATACC, NaC-74,
ACCGTGGGAGCGTACAGTCA 298 bp
52.3C

3Ax13.2 NaC-75, CGGCATGCAGCTCTTGGTA, NaC-76,
TGGCCACGTTCTAGCTACTGTC 291
bp 55.9C

3Ax14.1 NaC-55, GAGTTCCCTTTAGGCTGTTATT, NaC-56
TCTTATTGCCTTCATGGATTCTA,
285bp, 50.5C

3Ax14.2 NaC-57, TGAAAAATAAGATGCGGGAGTG, NaC-58,
GTGAGGCTGGGTTGTTATG, 247
bp, 51.7C

3Ax14.3 NaC-59, GAGATGGGAATGGAACCA, NaC-60,
TTCGATAATGCATATAAGCACAA, 297
bp, 51.7C

3Ax15 NaC-318 AAGGGGAAAATCACATCTT, NaC-319
TTAAATGAGGCATATTCACTCTCC 235bp
51.8C

3Ax16 NaC-116, GGAAGTGGAGTGGGAAGG, NaC-117,
ATTCTTGCCAATATGCATTCACT, 271
bp, 51.1C

3Ax17 NaC-157, TTCTTTGTACTCACTATTACTAA, NaC-
158, AAACTGCCTTTAAAAACAAT
317bp 46.6C

3Ax18 NaC-374 TACCACACCCCTATACCTCAGTCA, NaC-375
GAGTATGGCACCCCTTTCTATCTA
275bp 51.4C

FIGURE 6 (cont'd)

3Ax19.1 NaC-386 GCTATGTTCCCCTCGCTGTCT, NaC-387
TGCTTGCCAAGAGCCTGAC
231bp 53.6C

3Ax19.2 NaC-388 GCTGGCAAGTTCTACCACTGTG, NaC-389
CAAACGAAGAACATCAGGGAAATA
247bp 53.0C

3Ax20 NaC-376 TTCACAATATTGTACAAAAAGTTA, NaC-377
ATTACCACCAATATTCAACCATAAG
230 bp 46.4C

3Ax21 NaC-378 TCAGGGTAAGGCAAAAGTAGCAC, NaC-379
GAACCCCAGAACATGAAGAAAGGTAA 294
bp 50.2C

3Ax22 NaC-380 TTTGTGAAAGTACTATTGGAACAC, NaC-381
ACGCATGGCTTGGAACAT 204bp 49.6C

3Ax23.1 NaC-382 CCCGTATGTGGAAGGGCTTAT, NaC-383
CTAGGTTGATCCGGGACAAAACTA
246bp 52.9C

3Ax23.2 NaC-384 AACGGATGACCAGGGCAAATAC, NaC-385
CTAGAAGGTCTGGGCAACTG
234bp 54.8C

3Ax24.1 NaC-317 AAGCCATCATGTAAAGTAAAAAG, NaC-320
ATCCCAAAGATGGCATAGATA 274
bp, 52.5C

3Ax24.2 NaC-325 CACGCTGCTTTGCTTGA, NaC-326 TGAGCTGCCAGGGTGAATTG
282 bp 54.9C

3Ax24.3 NaC-327 TTGCTAGCACCTATTCTTAATAGTGC NaC-328
CCAGGGCAGCTGCAAAATCAGAG
318bp 54.2C

3Ax24.4 NaC-329 CCCGATGCGACCCAGTTA, NaC-330 TGGAGGGGTTGATGCCATA
250 bp, 55.2C

FIGURE 6 (cont'd)

3Ax24.5 NaC-331 GATGGATGCCCTCGAATACAGA, NaC-332
TTCCCATTAGTTGTCAATAATC
258 bp 50.6C

3Ax24.6 NaC-321 AAGGGGAGGATTGACTTACCTAT, NaC-333
TTGGCATGGACCTCCTTTGA 302
bp 51.5C

FIGURE 6 (cont'd)

a. Asn43DEL:

9706 (allele 1; IGE patient): CAA GAT AAT GAT GAT GAG ;

9632 (allele 2; patient has IGE): CAA GAT --- GAT GAT GAG ;

allele 1 = 131/146 (0.90);

allele 2= 15/146 (0.10);

for IGE patients: homozygotes (22): 3958, 9632; heterozygotes (12): 9049, 9152, 9649, 9710, 9896, 10069, 10191, 10213, 9993, 10009, 10256 (note that 2 patients are homozygous for the rare allele; all patients have IGE); in controls: allele 1 = 45/154 (0.94); allele 2 = 9/154 (0.06) and no 22 homozygotes found.

b. normal: tggtgtaaggtag,

10670 (IGE patient): tggtataaggtag

c. normal: ccccttatatctccaac,

10250 (IGE patient): ccccttatayctccaac;

d. Val1035Ile:

normal: AAA TAC GTA ATC GAT,

9269 (IGE patient): AAA TAC RTA ATC GAT; GTA>ATA = Val>Ile.

FIGURE 7